

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1 1. (Previously Presented) A method for the investigation of patterns in collections of
2 peak-containing data strings or lists of peaks, the method comprising the
3 following steps:
 - 4 (a) displaying the data of the collections of the peak-containing data strings or
5 peak lists in graphical form,
 - 6 (b) calculating significant patterns, correlations or classifications within one or
7 between different collections of the peak-containing data strings or the
8 peak lists by pattern recognition algorithms, thereby including a
9 determination of peaks significantly participating in the calculation of the
10 significant patterns, correlations or classifications, and
 - 11 (c) highlighting, in the graphical display of the peak-containing data strings or
12 the peak lists, the peaks significantly participating in the calculation of the
13 significant patterns, correlations or classifications.
- 1 2. (Previously Presented) A method according to Claim 1 wherein the peak-
2 containing data strings are displayed, in step (a), by a density plot.
- 1 3. (Original) A method according to Claim 1 wherein features of the graphical
2 display are interactively accessible.
- 1 4. (Previously Presented) A method according to Claim 3 wherein an ensemble of
2 start peaks for the pattern recognition algorithms is selected from the graphical
3 display.

- 1 5. (Previously Presented) A method according to Claim 3 wherein peaks are
2 selected on the display before the pattern recognition algorithms are started and
3 the selected peaks are highlighted in the graphical display together with the
4 peaks which significantly participate in the calculation of significant patterns,
5 correlations or classifications.
- 1 6. (Previously Presented) A method according to Claim 3 wherein, after pattern
2 recognition by the pattern recognition algorithms is completed, a peak on the
3 graphical display is selected in order to show more information with respect to the
4 peak's participation in the calculation of the significant patterns, correlations or
5 classifications.
- 1 7. (Previously Presented) A method according to Claim 1 wherein the intensity
2 values of the peak-containing data strings are transformed by a filter before the
3 pattern recognition algorithm is applied.